

IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/783,311

DATE: 08/02/2004

TIME: 11:31:56

Input Set : A:\10280-059001.txt

Output Set: N:\CRF4\08022004\J783311.raw

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4 <110> APPLICANT: Nixon, Andrew
   Hogan, Shannon
7 <120> TITLE OF INVENTION: PAPP-A LIGANDS
10 <130> FILE REFERENCE: 10280-059001
12 <140> CURRENT APPLICATION NUMBER: US 10/783,311
13 <141> CURRENT FILING DATE: 2004-02-19
15 <150> PRIOR APPLICATION NUMBER: US 60/448,515
16 <151> PRIOR FILING DATE: 2003-02-19
18 <160> NUMBER OF SEQ ID NOS: 394
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1627
24 <212> TYPE: PRT
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                                  25
32 Arg Ala Gly Arg Pro Pro Arg Pro Ala Ala Gly Pro Ala Thr Cys Ala
                              40
34 Thr Arq Gly Pro Arq Pro Pro Arg Leu Ala Ala Ala Ala Ala Ala Ala
36 Gly Arg Ala Trp Glu Ala Val Arg Val Pro Arg Arg Arg Gln Gln Arg
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38 Glu Ala Arg Gly Ala Thr Glu Glu Pro Ser Pro Pro Ser Arg Ala Leu
39
40 Tyr Phe Ser Gly Arg Gly Glu Gln Leu Arg Val Leu Arg Ala Asp Leu
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             100
42 Glu Leu Pro Arg Asp Ala Phe Thr Leu Gln Val Trp Leu Arg Ala Glu
43 115
                              120
44 Gly Gly Gln Arg Ser Pro Ala Val Ile Thr Gly Leu Tyr Asp Lys Cys
                          135
46 Ser Tyr Ile Ser Arg Asp Arg Gly Trp Val Val Gly Ile His Thr Ile
                                          155
                      150
48 Ser Asp Gln Asp Asn Lys Asp Pro Arg Tyr Phe Phe Ser Leu Lys Thr
                  165
                                      170
50 Asp Arg Ala Arg Gln Val Thr Thr Ile Asn Ala His Arg Ser Tyr Leu
51
                                  185
              180
52 Pro Gly Gln Trp Val Tyr Leu Ala Ala Thr Tyr Asp Gly Gln Phe Met
                              200
54 Lys Leu Tyr Val Asn Gly Ala Gln Val Ala Thr Ser Gly Glu Gln Val
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215

ENTERED P.6

55 210

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56 Gly Gly Ile Phe Ser Pro Leu Thr Gln Lys Cys Lys Val Leu Met Leu 230 235 58 Gly Gly Ser Ala Leu Asn His Asn Tyr Arg Gly Tyr Ile Glu His Phe 250 245 60 Ser Leu Trp Lys Val Ala Arg Thr Gln Arg Glu Ile Leu Ser Asp Met 61 62 Glu Thr His Gly Ala His Thr Ala Leu Pro Gln Leu Leu Leu Gln Glu 280 64 Asn Trp Asp Asn Val Lys His Ala Trp Ser Pro Met Lys Asp Gly Ser 295 66 Ser Pro Lys Val Glu Phe Ser Asn Ala His Gly Phe Leu Leu Asp Thr 315 310 68 Ser Leu Glu Pro Pro Leu Cys Gly Gln Thr Leu Cys Asp Asn Thr Glu 325 330 70 Val Ile Ala Ser Tyr Asn Gln Leu Ser Ser Phe Arg Gln Pro Lys Val 340 345 72 Val Arg Tyr Arg Val Val Asn Leu Tyr Glu Asp Asp His Lys Asn Pro 360 355 · 74 Thr Val Thr Arg Glu Gln Val Asp Phe Gln His His Gln Leu Ala Glu 375 76 Ala Phe Lys Gln Tyr Asn Ile Ser Trp Glu Leu Asp Val Leu Glu Val 77 385 390 78 Ser Asn Ser Ser Leu Arg Arg Leu Ile Leu Ala Asn Cys Asp Ile 410 405 80 Ser Lys Ile Gly Asp Glu Asn Cys Asp Pro Glu Cys Asn His Thr Leu 425 82 Thr Gly His Asp Gly Gly Asp Cys Arg His Leu Arg His Pro Ala Phe 440 435 84 Val Lys Lys Gln His Asn Gly Val Cys Asp Met Asp Cys Asn Tyr Glu 455 460 86 Arg Phe Asn Phe Asp Gly Glu Cys Cys Asp Pro Glu Ile Thr Asn 470 475 88 Val Thr Gln Thr Cys Phe Asp Pro Asp Ser Pro His Arg Ala Tyr Leu 485 490 90 Asp Val Asn Glu Leu Lys Asn Ile Leu Lys Leu Asp Gly Ser Thr His 91 500 92 Leu Asn Ile Phe Phe Ala Lys Ser Ser Glu Glu Glu Leu Ala Gly Val 520 94 Ala Thr Trp Pro Trp Asp Lys Glu Ala Leu Met His Leu Gly Gly Ile 535 96 Val Leu Asn Pro Ser Phe Tyr Gly Met Pro Gly His Thr His Thr Met 550 555 98 Ile His Glu Ile Gly His Ser Leu Gly Leu Tyr His Val Phe Arg Gly 570 565 100 Ile Ser Glu Ile Gln Ser Cys Ser Asp Pro Cys Met Glu Thr Glu Pro 580 585 102 Ser Phe Glu Thr Gly Asp Leu Cys Asn Asp Thr Asn Pro Ala Pro Lys 595 600 104 His Lys Ser Cys Gly Asp Pro Gly Pro Gly Asn Asp Thr Cys Gly Phe RAW SEQUENCE LISTING

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DATE: 08/02/2004 TIME: 11:31:56

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•	106	Hiş	Ser	Phe	Phe	Asn	Thr	Pro	${ t Tyr}$	Asn	Asn	Phe	Met	Ser	Tyr	Ala	Asp
	107	625					630					635					640
	108	Asp	Asp	Cys	Thr	Asp	Ser	Phe	Thr	Pro	Asn	Gln	Val	Ala	Arg	Met	His
	109	_	-	-		645					650					655	
		Cys	Tyr	Leu	Asp	Leu	Val	Tvr	Gln	Glv	Trp	Gln	Pro	Ser	Ara	Lvs	Pro
	111	Cys	- y -	LCu	660			- 7 -	0111	665		-			670	-1-	
		Ala	Daso	17-7		T 011	717	Dro	Cln		T 011	C337	uic	Thr		7 cn	Cor
		Ala	PLO		Ala	ьeu	нта	FIO		vai	neu	GIY	1113		1111	лър	JCI
	113			675	~ 3	_	-1		680	73 -		a 1	***	685	Dl	a 1	70
	114	Val		Leu	GIu	Trp	Phe		Pro	ше	Asp	GIY		Pne	Pne	GIU	arg
	115		690					695					700		_		
	116	Glu	Leu	Gly	Ser	Ala	Cys	His	Leu	Cys	Leu	Glu	Gly	Arg	Ile	Leu	Val
		705					710					715					720
	118	Gln	Tyr	Ala	Ser	Asn	Ala	Ser	$\operatorname{\mathtt{Ser}}$	Pro	Met	Pro	Cys	Ser	Pro	Ser	Gly
	119					725					730					735	
		His	Trp	Ser	Pro	Arq	Glu	Ala	Glu	Gly	His	Pro	Asp	Val	Glu	Gln	Pro
	121		r		740	2				745			-		750		
		Cys	Lave	Ser		Val	Ara	Thr	Trp	Ser	Pro	Asn	Ser	Ala	Val	Asn	Pro
	123	O _I D		755			5		760					765			
		His	Thr		Dro	Dro	λΊэ	Cvc		Glu	Pro	Gln	Glv		Tur	Len	Glu
		пть		vai	FIO	FIO	nia	775	110	Olu	110	0111	780	Cyb	- <i>y</i> -	Lou	010
	125	_	770	51. .	.		D		77a7	Dese	~1	Car		The sec	т1.	Trn	v-1
		Leu	GIU	Pne	Leu	туг		ьeu	val	PIO	Gru		ьеи	TILL	116	ırp	800
		785	_,		_		790	_	_		a	795	77.	**- 7	7	T	
		Thr	Phe	Val	Ser		Asp	Trp	Asp	ser		GIĀ	Ата	vai	Asn		тте
	129				_	805				2	810	_	_	7		815	_
	130	Lys	Leu	Leu		Val	Ser	GLY	Lys		11e	Ser	Leu	GLY		GIn	Asn
	131				820					825					830		
	132	Val	Phe	Cys	Asp	Val	Pro	Leu	Thr	Ile	Arg	Leu	\mathtt{Trp}	Asp	Val	Gly	Glu
	133			835				,	840					845			
	134	Glu	Val	Tyr	Gly	Ile	Gln	Ile	Tyr	Thr	Leu	Asp	Glu	His	Leu	Glu	Ile
	135		850					855					860				
	136	Asp	Ala	Ala	Met	Leu	Thr	Ser	\mathtt{Thr}	Ala	Asp	Thr	Pro	Leu	Cys	Leu	Gln
	137	865					870					875					880
	138	Cys	Lys	Pro	Leu	Lys	Tyr	Lys	Val	Val	Arg	Asp	Pro	Pro	Leu	Gln	Met
	139	•	-			885	_	_			890					895	
	140	Asp	Val	Ala	Ser	Ile	Leu	His	Leu	Asn	Arq	Lys	Phe	Val	Asp	Met	Asp
	141	1-			900					905		•			910		_
		Leu	Asn	Len	Glv	Ser	Val	Tvr	Gln	Tvr	Trp	Vaĺ	Ile	Thr	Ile	Ser	Glv
	143			915	1			- 4 -	920	- 2				925			-
		Thr	Glu		Sar	Glu	Dro	Ser		Δla	Val	Thr	ጥህዮ		His	Glv	Ara
	145	1111	930	GIU	DCL	GIU	110	935	110	711u	VUI	1111	940				9
		Gly		Crra	C1	7 an	Clar		тіо	Cln	Two	Λan		Clv	Glu	Gln	Cvc
			IAT	Cys	GTA	Asp		116	TIE	GIII	пур	955	GIII	GIY	Giu	OIII	960
		945	_		_	_	950	_	~1 ·		0 1		0	T	D)	C	
		Asp	Asp	met	Asn		тте	Asn	GTA	Asp		cys	ser	ьeu	rue		arg
	149	_			_	965		_		_	970	_	_		~	975	D).
		Gln	Glu	Val		Phe	Asn	Cys	He		GLu	Pro	ser	Arg		туr	rne
	151				980					985		_	_		990		
	152	His	Asp	Gly	Asp	Gly	Val	Cys			Phe	Glu	Gln			Ser	Ile
	153			995					100)				100	5		

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Input Set : A:\10280-059001.txt

	-		_	_		_			Gln	Gly	Phe		_	Gln	Trp	Ala
155		1010					1015		70	~1	a 3	1020		a 1	m	**- 7
			Ата	Ser	vai				_			_			Trp	
	1029		~ 3	~ 7	_	1030		_						_		1040
	He	He	GIY	GIn			Ala	Ser	GIņ			Arg	Thr	Lys	Val	
159	_	_	_		1045					1050			_	_	1055	
	Asp	Leu	Ser		_	He	Ser	GIn			Trp	Tyr	Pro	_	Thr	He
161	_			1060			_	_ ~	1069					1070		
	Ser	Tyr			Ser	GIn	Leu			Thr	Thr	Phe			Arg	Ala
163			1079	-			_	1080				_ ~	1089		_	-
	_			GIn	Pro	Met			Ala	Ala	Val			His	Leu	Val
		1090					1099					1100			_	
		_	Gly	Thr	Tyr	_	_	Asp	Gln	Lys			Thr	Ile	Ser	
	1109					111(1115				•	1120
	Gln	Leu	Leu	Asp		_	Asp	Gln	Ser		_	Leu	Gly	Leu	His	
169				_	1125		_	_		1130					1135	
	Leu	Ser	Cys	_		Asn	Pro	Leu			Pro	Val	Val		Asp	Leu
171		_		1140			_		1145				_	1150	_	
	Ser	Gln			Tyr	His	Ser			Val	Arg	Val			Ser	Ser
173			115		. =			1160		_	_		1169			_,
	Pro			Ala	Ile	Ser	-		Ala	Leu	Arg			Asp	Asn	Phe
175		1170	_	_			1175		_		_	1180				
	_		Val	Thr	Leu			Cys	Gln	Arg			Thr	Tyr	Ser	
	1189					1190					1195		_			1200
	Ala	Glu	Gln	Ser	-		His	Phe	Ala	-		Lys	Thr	Asp	Cys	
179	-				1205			_		1210			_	_	1215	
	Glu	Leu	Ala			Asn	Ala	Ser			Cys	Ser	Ser		Asp	Arg
181	_		T	1220		_	1		1225		_	1	~ 3	1230		_
182	11777		(2 37	ΔІа	Gin	('\\r.c.	יויי	Val	ser	('VC	Δνα	'l'hr	(+ I V	'I'WY	ハカト	Leu
4 0 0	TYL	HIS			0111					Cys	n. 9				vai	
183			123	5				1240)				124	5		
184		Ile	123! Arg	5		Asp	Glu	1240 Leu)			Gln	1249 Thr	5	Pro	Ser
184 185	Gln	Ile 1250	1239 Arg)	5 Arg	Asp	Asp	Glu 1255	1240 Leu 5	lle	Lys	Ser	Gln 1260	1249 Thr	5 Gly	Pro	•
184 185 186	Gln Val	Ile 1250 Thr	1239 Arg)	5 Arg	Asp Cys	Asp Thr	Glu 1255 Glu	1240 Leu 5	lle	Lys	Ser Asn	Gln 1260 Lys	1249 Thr	5 Gly		Cys
184 185 186 187	Gln Val 126	Ile 1250 Thr	123! Arg) Val	Arg Thr	Asp Cys	Asp Thr 1270	Glu 1255 Glu	1240 Leu Gly	Ile Lys	Lys Trp	Ser Asn 1275	Gln 1260 Lys	1249 Thr) Gln	Gly Val	Pro Ala	Cys 1280
184 185 186 187 188	Gln Val 126	Ile 1250 Thr	123! Arg) Val	Arg Thr	Asp Cys Cys	Asp Thr 1270 Ser	Glu 1255 Glu	1240 Leu Gly	Ile Lys	Lys Trp His	Ser Asn 1275 His	Gln 1260 Lys	1249 Thr) Gln	Gly Val	Pro Ala Ala	Cys 1280 Ala
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184 185 186 187 188 189	Gln Val 1269 Glu	Ile 1250 Thr Pro	123! Arg Val Val	Arg Thr Asp Cys	Asp Cys Cys 1285 Pro	Asp Thr 1270 Ser	Glu 1259 Glu) Ile	1240 Leu Gly Pro	Ile Lys Asp	Lys Trp His 1290 Phe	Ser Asn 1275 His	Gln 1260 Lys Gln	1249 Thr) Gln Val	Gly Val Tyr Cys	Pro Ala Ala 1295 Ser	Cys 1280 Ala
184 185 186 187 188 189 190	Gln Val 1269 Glu Ser	Ile 1250 Thr Pro	123! Arg Val Val Ser	Arg Thr Asp Cys 1300	Asp Cys Cys 1285 Pro	Asp Thr 1270 Ser Glu	Glu 1255 Glu) Ile Gly	1240 Leu Gly Pro	Ile Lys Asp Thr	Lys Trp His 1290 Phe	Ser Asn 1275 His) Gly	Gln 1260 Lys Gln Ser	1249 Thr O Gln Val	Gly Val Tyr Cys 1310	Pro Ala Ala 1295 Ser	Cys 1280 Ala Phe
184 185 186 187 188 189 190 191	Gln Val 1269 Glu Ser	Ile 1250 Thr Pro	123! Arg Val Val Ser	Arg Thr Asp Cys 1300	Asp Cys Cys 1285 Pro	Asp Thr 1270 Ser Glu	Glu 1255 Glu) Ile Gly	1240 Leu Gly Pro Thr	Ile Lys Asp Thr 1305	Lys Trp His 1290 Phe	Ser Asn 1275 His) Gly	Gln 1260 Lys Gln Ser	1249 Thr O Gln Val Gln Ser	Gly Val Tyr Cys 1310	Pro Ala Ala 1295 Ser	Cys 1280 Ala Phe
184 185 186 187 188 189 190 191 192 193	Gln Val 1269 Glu Ser	Ile 1250 Thr Pro Phe	123! Arg Val Val Ser Arg	Arg Thr Asp Cys 1300 His	Asp Cys Cys 1285 Pro	Asp Thr 1270 Ser Glu Ala	Glu 1255 Glu) Ile Gly	1240 Leu Gly Pro Thr Leu 1320	Lys Asp Thr 1305 Lys	Lys Trp His 1290 Phe Gly	Asn 1275 His) Gly Asn	Gln 1260 Lys Gln Ser Asn	Thr Gln Val Gln Ser 132	Gly Val Tyr Cys 1310 Leu	Pro Ala Ala 1295 Ser Leu	Cys 1280 Ala Phe
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184 185 186 187 188 190 191 192 193 194 195	Gln Val 1269 Glu Ser Gln Cys	Ile 1250 Thr Pro Phe Cys Met 1330	1239 Arg Val Val Ser Arg 1319 Glu	Arg Thr Asp Cys 1300 His	Cys Cys 1285 Pro Pro Gly	Asp Thr 1270 Ser Glu Ala Leu	Glu 1255 Glu Ile Gly Gln Trp 1335	1240 Leu Gly Pro Thr Leu 1320 Ser	Lys Asp Thr 1305 Lys Phe	Lys Trp His 1290 Phe Gly Pro	Asn 1275 His OGly Asn	Gln 1260 Lys Gln Ser Asn Ala 1340	1249 Thr) Gln Val Gln Ser 1329 Leu)	Gly Val Tyr Cys 1310 Leu Cys	Pro Ala Ala 1295 Ser Leu Glu	Cys 1280 Ala The
184 185 186 187 188 189 190 191 192 193 194 195 196	Gln Val 1269 Glu Ser Gln Cys Met	Ile 1250 Thr Pro Phe Cys Met 1330 Cys	1239 Arg Val Val Ser Arg 1319 Glu	Arg Thr Asp Cys 1300 His	Cys Cys 1285 Pro Pro Gly	Asp Thr 1270 Ser Glu Ala Leu Pro	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro	1240 Leu Gly Pro Thr Leu 1320 Ser	Lys Asp Thr 1305 Lys Phe	Lys Trp His 1290 Phe Gly Pro	Asn 1275 His Oly Asn Glu	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp	1249 Thr) Gln Val Gln Ser 1329 Leu)	Gly Val Tyr Cys 1310 Leu Cys	Pro Ala Ala 1295 Ser Leu	Cys 1280 Ala Phe Thr Leu
184 185 186 187 188 189 190 191 192 193 194 195 196	Gln Val 1269 Glu Ser Gln Cys Met 1349	The 1250 Thr 5 Pro Phe Cys Met 1330 Cys 5	1239 Arg Val Val Ser Arg 1319 Glu Leu	Arg Thr Asp Cys 1300 His Asp	Asp Cys 1285 Pro Pro Gly	Thr 1270 Ser Glu Ala Leu Pro 1350	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro	1240 Leu Gly Pro Thr Leu 1320 Ser	Ile Lys Asp Thr 1305 Lys Phe	Lys Trp His 1290 Phe Gly Pro Asn	Asn 1275 His Gly Asn Glu Ala 1355	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp	1249 Thr Gln Val Gln Ser 1329 Leu Leu	Gly Val Tyr Cys 1310 Leu Cys	Pro Ala Ala 1299 Ser Leu Glu Thr	Cys 1280 Ala Phe Thr Leu Ala 1360
184 185 186 187 188 189 190 191 192 193 194 195 196 197	Gln Val 1269 Glu Ser Gln Cys Met 1349	The 1250 Thr 5 Pro Phe Cys Met 1330 Cys 5	1239 Arg Val Val Ser Arg 1319 Glu Leu	Arg Thr Asp Cys 1300 His Asp	Asp Cys 1285 Pro Pro Gly Pro Asn	Thr 1270 Ser Glu Ala Leu Pro 1350 Lys	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro	1240 Leu Gly Pro Thr Leu 1320 Ser	Ile Lys Asp Thr 1305 Lys Phe	Lys Trp His 1290 Phe Gly Pro Asn	Asn 1275 His Oly Asn Glu Ala 1355 Ser	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp	1249 Thr Gln Val Gln Ser 1329 Leu Leu	Gly Val Tyr Cys 1310 Leu Cys	Pro Ala Ala 1295 Ser Leu Glu Thr	Cys 1280 Ala Phe Thr Leu Ala 1360 Lys
184 185 186 187 188 189 190 191 192 193 194 195 196 197 198	Gln Val 1269 Glu Ser Gln Cys Met 1349 Arg	Ile 1250 Thr Pro Phe Cys Met 1330 Cys Cys	1239 Arg Val Val Ser Arg 1319 Glu Leu Arg	Arg Thr Asp Cys 1300 His Asp Asp Ala Glu	Asp Cys 1285 Pro Pro Gly Pro Asn 1365	Thr 1270 Ser Glu Ala Leu Pro 1350 Lys	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro)	1240 Leu Gly Pro Thr Leu 1320 Ser Val	Ile Lys Asp Thr 1305 Lys Phe Pro Val	Lys Trp His 1290 Phe Gly Pro Asn Gly 1370	Asn 1275 His Gly Asn Glu Ala 1355 Ser	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp	1249 Thr Gln Val Gln Ser 1329 Leu Cys	Gly Val Tyr Cys 1310 Leu Cys Gln Lys	Pro Ala Ala 1295 Ser Leu Glu Thr Tyr 1375	Cys 1280 Ala Phe Thr Leu Ala 1360 Lys
184 185 186 187 188 190 191 192 193 194 195 196 197 198 199 200	Gln Val 1269 Glu Ser Gln Cys Met 1349 Arg	Ile 1250 Thr Pro Phe Cys Met 1330 Cys Cys	1239 Arg Val Val Ser Arg 1319 Glu Leu Arg	Arg Thr Asp Cys 1300 His Asp Ala Glu Gly	Asp Cys 1289 Pro Pro Gly Pro Asn 1369 Tyr	Thr 1270 Ser Glu Ala Leu Pro 1350 Lys	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro)	1240 Leu Gly Pro Thr Leu 1320 Ser Val	Ile Lys Asp Thr 1305 Lys Phe Pro Val Gly	Lys Trp His 1290 Phe Gly Pro Asn Gly 1370 Ser	Asn 1275 His Gly Asn Glu Ala 1355 Ser	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp	1249 Thr Gln Val Gln Ser 1329 Leu Cys	Gly Val Tyr Cys 1310 Leu Cys Gln Lys Ser	Pro Ala Ala 1299 Ser Leu Glu Thr Tyr 1379 Lys	Cys 1280 Ala Phe Thr Leu Ala 1360 Lys
184 185 186 187 188 190 191 192 193 194 195 196 197 198 199 200 201	Gln Val 1269 Glu Ser Gln Cys Met 1349 Arg	Ile 1250 Thr Fro Phe Cys Met 1330 Cys Cys Lys	1239 Arg Val Val Ser Arg 1319 Glu Leu Arg	Arg Thr Asp Cys 1300 His Asp Ala Glu Gly 1380	Asp Cys 1289 Pro Pro Gly Pro Asn 1369 Tyr	Thr 1270 Ser Glu Ala Leu Pro 1350 Lys	Glu 1255 Glu) Ile Gly Gln Trp 1335 Pro) His	1240 Leu Gly Pro Thr Leu 1320 Ser Val Lys Pro	Ile Lys Asp Thr 1305 Lys Phe Pro Val Gly 1385	Lys Trp His 1290 Phe Gly Pro Asn Gly 1370 Ser	Asn 1275 His Oly Asn Glu Ala 1355 Ser	Gln 1260 Lys Gln Ser Asn Ala 1340 Asp Phe Arg	1249 Thr Gln Val Gln Ser 1329 Leu Cys Lys	Gly Val Tyr Cys 1310 Leu Cys Gln Lys Ser 1390	Pro Ala Ala 1299 Ser Leu Glu Thr Tyr 1379 Lys	Cys 1280 Ala Phe Thr Leu Ala 1360 Lys Lys

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206	Leu	Tyr	Gln	Cys	Thr	Asn	Gly	Phe	Gln	Phe	Asn	Ser	Glu	Cys	Arq	Ile
	1425	_		•)				1435			-		1440
208	Lys	Cys	Glu	Asp	Ser						Leu		Ser	Asn	Val	Ile
209	•	4		-	1445					1450		-			1455	
210	His	Cvs	Ara	Lvs	Asp	Glv	Thr	Trp	Asn	Gly	Ser	Phe	His	Val	Cys	Gln
211		1	,	1460	_	1		-	1465	_				1470		
	Glu	Met	Gln	Gly	Gln	Cys	Ser	Val	Pro	Asn	Glu	Leu	Asn	Ser	Asn	Leu
213			1475			•		1480					1489			
214	Lys	Leu	Gln	Cys	Pro	Asp	Gly	Tyr	Ala	Ile	Gly	Ser	Glu	Cys	Ala	Thr
215	_	1490		•		-	1495	_			-	1500		-		
216	Ser	Cys	Leu	Asp	His	Asn	Ser	Glu	Ser	Ile	Ile	Leu	Pro	Met	Asn	Val
	1509	-		_		1510					1515					1520
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219				_	152					1530					1535	
220	Val	Val	Cys	Thr	Ala	Gly	Leu	Lys	Trp	Tyr	Pro	His	Pro	Ala	Leu	Ile
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222	His	Cys	Val	Lys	Gly	Cys	Glu	Pro	Phe	Met	Gly	Asp	Asn	Tyr	Cys	Asp
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224	Ala	Ile	Asn	Asn	Arg	Ala	Phe	Cys	Asn	Tyr	Asp	Gly	Gly	Asp	Cys	Cys
225		1570	С				1575	5				1580)			
226	Thr	Ser	Thr	Val	Lys	Thr	Lys	Lys	Val	Thr	Pro	Phe	Pro	Met	Ser	Cys
227	1589	5				1590	١ (1595	5				1600
			Gln	Gly	Asp						Pro		Ala	Gln		His
228 229	Asp	Leu		_	160	Cys 5	Ala	Cys	Arg	Asp 161	Pro		Ala	Gln	Glu 1615	His
228 229 230	Asp	Leu	Gln Lys	Asp	1609 Leu	Cys 5	Ala	Cys	Arg	Asp 161	Pro		Ala	Gln		His
228 229 230 231	Asp Ser	Leu Arg	Lys	Asp 1620	160! Leu	Cys 5	Ala	Cys	Arg	Asp 1610 His	Pro		Ala	Gln		His
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228 229 230 231 233 234 235 236 238	Asp Ser <210 <211 <211 <400	Leu Arg 0 > S1 1 > L1 2 > T3 3 > O1 0 > S1	Lys EQ II ENGTI YPE: RGAN: EQUEI	Asp 1620 NO: H: 19 PRT ISM: NCE:	160! Leu : 2 547 Homo	Cys 5 Arg Arg	Ala Gly piens	Cys Tyr	Arg Ser 1625	Asp 1610 His	Pro O Gly	Gln			161	His 5
228 229 230 231 233 234 235 236 238 239	Asp Ser <210 <211 <211 <400 Glu	Leu Arg 0 > S1 1 > L1 2 > T3 3 > O1 0 > S1	Lys EQ II ENGTI YPE: RGAN: EQUEI	Asp 1620 NO: H: 19 PRT ISM: NCE:	160! Leu : 2 547 Homo 2 Ala	Cys 5 Arg Arg	Ala Gly piens	Cys Tyr	Arg Ser 1625	Asp 1610 His	Pro	Gln			161s	His 5
228 229 230 231 233 234 235 236 238 239 240	Asp Ser <210 <211 <211 <400 Glu 1	Leu Arg 0> S1 1> L1 2> T3 3> O1 0> S1 Ala	Lys EQ II ENGTH YPE: RGANI EQUEN	Asp 1620 NO H: 19 PRT ISM: NCE:	160! Leu : 2 547 Homo 2 Ala 5	Cys Arg saj	Ala Gly piens Glu	Cys Tyr Glu	Ser 1625	Asp 1610 His 5	Pro O Gly Pro	Gln	Ser	Arg	1615 Ala 15	His 5
228 229 230 231 233 234 235 236 238 239 240 241	Asp Ser <210 <211 <211 <400 Glu 1	Leu Arg 0> S1 1> L1 2> T3 3> O1 0> S1 Ala	Lys EQ II ENGTH YPE: RGANI EQUEN	Asp 1620 NO H: 19 PRT ISM: NCE: Gly	160! Leu : 2 547 Homo 2 Ala 5	Cys Arg saj	Ala Gly piens Glu	Cys Tyr Glu	Ser 1625 Pro	Asp 1610 His 5	Pro O Gly	Gln	Ser	Arg Ala	1615 Ala 15	His 5
228 229 230 231 233 234 235 236 238 240 241 242	Asp Ser <210 <211 <211 <400 Glu 1 Tyr	Leu Arg 0> SI 1> LI 2> T' 3> OI 0> SI Ala Phe	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20	1609 Leu 2547 Homo 2 Ala 5	Cys Arg Sap Thr	Ala Gly Diens Glu Glu	Cys Tyr Glu Gln	Ser 1625 Pro Leu 25	Asp 1610 His 5 Ser 10 Arg	Pro Gly Pro Val	Gln Pro Leu	Ser Arg	Arg Ala 30	Ala 15 Asp	His Leu Leu
228 229 230 231 233 234 235 236 238 239 240 241 242 243	Asp Ser <210 <211 <211 <400 Glu 1 Tyr	Leu Arg 0> SI 1> LI 2> T' 3> OI 0> SI Ala Phe	Lys EQ II ENGTH YPE: RGANI EQUEN Arg Ser Pro	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20	1609 Leu 2547 Homo 2 Ala 5	Cys Arg Sap Thr	Ala Gly Diens Glu Glu	Cys Tyr Glu Gln Thr	Ser 1625 Pro Leu 25	Asp 1610 His 5 Ser 10 Arg	Pro O Gly Pro	Gln Pro Leu	Ser Arg Leu	Arg Ala 30	Ala 15 Asp	His Leu Leu
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228 229 230 231 233 234 235 236 238 249 241 242 243 244 245	Asp Ser <210 <211 <211 <400 Glu 1 Tyr Glu	Leu Arg 0> SI 1> LI 2> TI 3> OI 0> SI Ala Phe Leu Gly	Lys EQ II ENGTH YPE: RGANI EQUEN Arg Ser Pro 35	Asp 1620 D NO H: 19 PRT ISM: NCE: Gly Gly 20 Arg	1609 Leu D: 2 547 Homo 2 Ala 5 Arg	Cys Arg Arg Thr Gly Ala	Ala Gly Diens Glu Glu Phe Ala	Cys Tyr Glu Gln Thr 40	Arg Ser 1625 Pro Leu 25 Leu	Asp 1610 His 5	Pro Gly Pro Val	Pro Leu Trp	Ser Arg Leu 45	Arg Ala 30 Arg	Ala 15 Asp	Leu Leu Glu
228 229 230 231 233 234 235 236 238 240 241 242 243 244 245 246	Asp Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly	Leu Arg 0> SI 1> LI 2> TI 3> OI 0> SI Ala Phe Leu Gly 50	Lys EQ II ENGTH YPE: RGANI EQUEN Arg Ser Pro 35 Gln	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20 Arg	1609 Leu D: 2 547 Homo 2 Ala 5 Arg Asp	Cys Arg Arg Thr Gly Ala Pro	Ala Gly piens Glu Glu Phe Ala 55	Cys Tyr Glu Gln Thr 40 Val	Arg Ser 1625 Pro Leu 25 Leu Ile	Asp 1610 His 5 Ser 10 Arg Gln Thr	Pro Gly Pro Val Val Gly	Pro Leu Trp Leu 60	Ser Arg Leu 45 Tyr	Arg Ala 30 Arg Asp	Ala 15 Asp Ala Lys	Leu Leu Glu Cys
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228 229 230 231 233 234 235 236 238 249 241 242 243 244 245 246 247 248	Asp Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly Ser 65	Leu Arg 0> SI 1> Li 2> Ti 3> OI 0> SI Ala Phe Leu Gly 50 Tyr	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser Pro 35 Gln Ile	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20 Arg Arg	1609 Leu 10 : 2 547 Homo 2 Ala 5 Arg Asp Ser	Cys Arg Arg Thr Gly Ala Pro Asp 70	Glu Glu Phe Ala 55 Arg	Cys Tyr Glu Gln Thr 40 Val Gly	Arg Ser 1625 Pro Leu 25 Leu Ile Trp	Asp 1610 His Ser 10 Arg Gln Thr	Pro Gly Pro Val Val Gly Val 75	Pro Leu Trp Leu 60	Ser Arg Leu 45 Tyr Ile	Arg Ala 30 Arg Asp	Ala 15 Asp Ala Lys	Leu Leu Glu Cys Ile 80
228 229 230 231 233 234 235 236 238 249 241 242 243 244 245 246 247 248 249	Asp Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly Ser 65	Leu Arg 0> SI 1> Li 2> Ti 3> OI 0> SI Ala Phe Leu Gly 50 Tyr	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser Pro 35 Gln Ile	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20 Arg Arg	1609 Leu 10 12 547 Homo 2 Ala 5 Arg Asp Ser Arg	Cys Arg Arg Thr Gly Ala Pro Asp 70	Glu Glu Phe Ala 55 Arg	Cys Tyr Glu Gln Thr 40 Val Gly	Arg Ser 1625 Pro Leu 25 Leu Ile Trp	Asp 1610 His Ser 10 Arg Gln Thr Val	Pro Gly Pro Val Val Gly Val	Pro Leu Trp Leu 60	Ser Arg Leu 45 Tyr Ile	Arg Ala 30 Arg Asp	Ala 15 Asp Ala Lys Thr	Leu Leu Glu Cys Ile 80
228 229 230 231 233 234 235 236 238 249 241 242 243 244 245 246 247 248 249 250	Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly Ser 65 Ser	Leu Arg 0> SI 1> LI 2> TI 3> OI 0> SI Ala Phe Leu Gly 50 Tyr Asp	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser Pro 35 Gln Ile Gln	Asp 1620 NO H: 19 PRT ISM: NCE: Gly Gly 20 Arg Arg Ser	1609 Leu 10 12 547 Homo 2 Ala 5 Arg Asp Ser Arg Asn 85	Cys Arg Arg Thr Gly Ala Pro Asp 70 Lys	Glu Glu Phe Ala 55 Arg Asp	Cys Tyr Glu Gln Thr 40 Val Gly Pro	Pro Leu 25 Leu Ile Trp Arg	Asp 1610 His Ser 10 Arg Gln Thr Val Tyr 90	Pro Gly Pro Val Val Gly Val 75 Phe	Pro Leu Trp Leu 60 Gly	Ser Arg Leu 45 Tyr Ile Ser	Arg Ala 30 Arg Asp His	Ala 15 Asp Ala Lys Thr Lys 95	Leu Leu Glu Cys Ile 80 Thr
228 229 230 231 233 234 235 236 238 249 240 241 242 243 244 245 246 247 248 249 250 251	Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly Ser 65 Ser	Leu Arg 0> SI 1> LI 2> TI 3> OI 0> SI Ala Phe Leu Gly 50 Tyr Asp	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser Pro 35 Gln Ile Gln	Asp 1620 NO H: 19 PRT ISM: NCE: Gly 20 Arg Arg Ser Asp	1609 Leu 10 12 547 Homo 2 Ala 5 Arg Asp Ser Arg Asn 85	Cys Arg Arg Thr Gly Ala Pro Asp 70 Lys	Glu Glu Phe Ala 55 Arg Asp	Cys Tyr Glu Gln Thr 40 Val Gly Pro	Pro Leu 25 Leu Ile Trp Arg	Asp 1610 His Ser 10 Arg Gln Thr Val Tyr 90	Pro Gly Pro Val Val Gly Val 75	Pro Leu Trp Leu 60 Gly	Ser Arg Leu 45 Tyr Ile Ser	Arg Ala 30 Arg Asp His Leu Ser	Ala 15 Asp Ala Lys Thr Lys 95	Leu Leu Glu Cys Ile 80 Thr
228 229 230 231 233 234 235 236 238 249 240 241 242 243 244 245 246 247 248 249 250 251 252	Ser <210 <211 <211 <400 Glu 1 Tyr Glu Gly Ser 65 Ser Asp	Leu Arg 0> SI 1> LI 2> Ti 3> OI 0> SI Ala Phe Leu Gly 50 Tyr Asp Arg	Lys EQ II ENGTH YPE: RGAN: EQUEN Arg Ser Pro 35 Gln Ile Gln Ala	Asp 1620 NO H: 19 PRT ISM: NCE: Gly 20 Arg Arg Ser Asp	1609 Leu Control L	Cys Arg Arg Thr Gly Ala Pro Asp 70 Lys Val	Glu Glu Phe Ala 55 Arg Asp	Cys Tyr Glu Gln Thr 40 Val Gly Pro Thr	Pro Leu 25 Leu Ile Trp Arg	Asp 1610 His 5 Ser 10 Arg Gln Thr Val Tyr 90 Asn	Pro Gly Pro Val Val Gly Val 75 Phe	Pro Leu Trp Leu 60 Gly Phe	Ser Arg Leu 45 Tyr Ile Ser Arg	Arg Ala 30 Arg Asp His Leu Ser 110	Ala 15 Asp Ala Lys Thr Lys 95 Tyr	Leu Leu Cys Ile 80 Thr

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/783,311

DATE: 08/02/2004 TIME: 11:31:57

Input Set : A:\10280-059001.txt

Output Set: N:\CRF4\08022004\J783311.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seg#:359; Xaa Pos. 5,6,7,8,9,10
Seg#:360; Xaa Pos. 8,9,10,11,13
Seq#:361; Xaa Pos. 7,9,11
Seq#:362; Xaa Pos. 1,2,3
Seg#:363; Xaa Pos. 4,5,6
Seg#:364; Xaa Pos. 1,3,4,5,6,8
Seq#:365; Xaa Pos. 4,5,6,8
Seq#:366; Xaa Pos. 9
Seq#:367; Xaa Pos. 9
Seg#:368; Xaa Pos. 2,5,6,8,10
Seq#:369; Xaa Pos. 2,4
Seq#:370; Xaa Pos. 1,3,5
Seq#:371; Xaa Pos. 3
Seg#:372; Xaa Pos. 3
Seq#:373; Xaa Pos. 2,3
Seq#:374; Xaa Pos. 2,3,7
Seq#:375; Xaa Pos. 2,3,7
Seq#:376; Xaa Pos. 2,3,7,9
Seq#:377; Xaa Pos. 1,2
Seq#:378; Xaa Pos. 3
Seq#:379; Xaa Pos. 1
Seq#:380; Xaa Pos. 1,2
Seq#:381; Xaa Pos. 1,2,3,4,5,6,7,8,9,10
Seq#:382; Xaa Pos. 1,2,3,4,5,6
Seq#:383; Xaa Pos. 3,5
Seq#:384; Xaa Pos. 1,2,3,4,5,6,7
Seq#:385; Xaa Pos. 1,2,3,4,5,6,7
Seq#:386; Xaa Pos. 1,2,3,4,5,6,7
Seq#:387; Xaa Pos. 7,9,11,12
Seq#:388; Xaa Pos. 1,2,3,4,5,6
Seg#:389; Xaa Pos. 8,9,10,11,13
Seq#:390; Xaa Pos. 1,2,3,4
Seq#:391; Xaa Pos. 2,5,6,8,10
Seq#:392; Xaa Pos. 1,2,3,4,5,6,7,8
Seg#:393; Xaa Pos. 1,2,3,5,7,8,9,10
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Seq#:358; Xaa Pos. 4,5,6,7,8,9,10,11

PATENT APPLICATION: US/10/783,311

DATE: 08/02/2004 TIME: 11:31:57

Input Set : A:\10280-059001.txt

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L:2141 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:2502 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:126
L:6228 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6232 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6236 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6240 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6244 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6248 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6252 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6256 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6260 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:358
L:6261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:358 after pos.:0
L:6272 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6277 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:359
L:6281 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:359
L:6285 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:359
L:6289 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:359
L:6290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:359 after pos.:0
L:6301 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6305 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:360
L:6309 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:360
L:6313 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:360
L:6317 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:360
L:6321 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:360
L:6322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:360 after pos.:0
L:6333 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6337 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:361
L:6341 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:361
L:6345 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:361
L:6346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:361 after pos.:0
L:6357 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6361 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:362
L:6365 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:362
L:6366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:362 after pos.:0
L:6377 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6381 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:363
L:6385 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:363
L:6389 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:363
L:6390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:363 after pos.:0
L:6401 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6405 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:364
L:6410 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:364
L:6414 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:364
L:6418 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:364
L:6422 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:364
L:6423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:364 after pos.:0
L:6434 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6438 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:365
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PATENT APPLICATION: US/10/783,311

DATE: 08/02/2004 TIME: 11:31:57

Input Set : A:\10280-059001.txt

Output Set: N:\CRF4\08022004\J783311.raw

L:6442 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:365 L:6446 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:365 L:6447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:365 after pos.:0 L:6458 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6462 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:366 L:6463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:366 after pos.:0 L:6474 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6478 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:367 L:6479 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:367 after pos.:0 L:6490 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6494 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:368 L:6498 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:368 L:6502 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:368 L:6506 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:368 L:6510 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:368 L:6511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:368 after pos.:0 L:6522 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6527 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:369 L:6532 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:369 L:6533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:369 after pos.:0 L:6544 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6548 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:370 L:6552 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:370 L:6557 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:370 L:6558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:370 after pos.:0 L:6569 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6573 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:371 L:6574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:371 after pos.:0 L:6585 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6589 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:372 L:6590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:372 after pos.:0 L:6601 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6606 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:373 L:6610 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:373 L:6611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:373 after pos.:0 L:6622 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6626 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:374 L:6630 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:374 L:6631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:374 after pos.:0 L:6642 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6646 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:375 L:6650 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:375 L:6655 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:375 L:6656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:375 after pos :0 L:6667 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:6671 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:376 L:6675 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:376 L:6679 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:376 L:6680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:376 after pos.:0

DATE: 08/02/2004 PATENT APPLICATION: US/10/783,311 TIME: 11:31:57

Input Set : A:\10280-059001.txt

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L:6691 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6695 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:377
L:6696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:377 after pos.:0
L:6707 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6711 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:378
L:6712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:378 after pos.:0
L:6723 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6727 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:379
L:6728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:379 after pos.:0
L:6739 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6743 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:380
L:6747 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:380
L:6748 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:380 after pos.:0
L:6759 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6763 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6767 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6771 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6775 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6780 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6784 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6788 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6792 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6796 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6800 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:381
L:6801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:381 after pos.:0
L:6812 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6816 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:382
L:6820 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:382
L:6824 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:382
L:6828 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:382
L:6829 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:382 after pos.:0
L:6840 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6844 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:383
L:6848 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:383
L:6849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:383 after pos.:0
L:6860 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6864 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6868 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6872 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6876 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6880 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6884 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6888 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:384
L:6889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:384 after pos.:0
L:6900 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6904 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6908 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6912 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6916 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
```

VERIFICATION SUMMARY DATE: 08/02/2004 PATENT APPLICATION: US/10/783,311 TIME: 11:31:57

Input Set : A:\10280-059001.txt

```
L:6920 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6924 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6928 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:385
L:6929 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:385 after pos.:0
L:6940 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6944 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6948 \ M:258 \ W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6952 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6956 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6960 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6964 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6968 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:386
L:6969 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:386 after pos.:0
L:6980 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6984 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:387
L:6988 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:387
L:6992 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:387
L:6996 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:387
L:6997 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:387 after pos.:0
L:7008 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7012 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:388
L:7016 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:388 L:7020 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:388
L:7024 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:388
L:7025 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:388 after pos.:0
L:7036 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7040 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:389
L:7044 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:389
L:7048 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:389
L:7052 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:389
L:7056 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:389
L:7057 M:341 W: (46) "n" or "Xaa" used, for SEQ ID\#:389 after pos.:0
L:7068 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7072 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:390
L:7076 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:390
L:7080 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:390
L:7081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:390 after pos.:0
L:7092 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7096 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:391
L:7100 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:391
L:7104~M:258~W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:391
L:7109 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:391
L:7114 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:391
L:7115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:391 after pos.:0
L:7126 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7130~M:258~W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392
L:7134 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392
L:7138 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392
L:7142 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392
```

PATENT APPLICATION: US/10/783,311

DATE: 08/02/2004 TIME: 11:31:57

Input Set : A:\10280-059001.txt

Output Set: N:\CRF4\08022004\J783311.raw

L:7146 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392 L:7150 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:392 L:7151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:392 after pos.:0

L:7162 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

L:7166 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7170 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7174 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7178 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7182 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7182 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:393 L:7183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:393 after pos.:0